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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/666,536

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Stuart Mohr

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EXAMINER

FARAH, AHMED M

ART UNIT

PAPER NUMBER

3735

MAIL DATE

DELIVERY MODE

07/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/666,536	Applicant(s) MOHR ET AL.	
	Examiner Ahmed M. Farah	Art Unit 3735	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 1-17, 19-21 and 23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18, 22 and 24-56 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/22/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of invention II in the reply filed on May 8, 2008 is acknowledged.

Claims 1 and 2 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on May 8, 2008.

Claims 3-17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected inventions and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on May 8, 2008.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 18, 22, 24, 25, 34, 35 and 39-56 are rejected under 35 U.S.C. 102(e) as being anticipated by Artsyukhovich et al. US Patent No. 7,150,530.

As to claims 18, 24, 25, and 43, Artsyukhovich et al. disclose a variable spot size illuminator apparatus for delivering illumination and treatment laser energy on selected region of patient's retina, the apparatus comprising:

an energy device (laser **64**) that produces a treatment beam delivered to a tissue site;

a scattered light measurement device (probe laser **72**, analyzer **66**) that delivers an excitation beam to scatter off the treatment eye; and

a control device **68** optically coupled to the energy device **64** and the scattered light measurement device **72**, **66**, in response to a change in the scattered light from the excitation beam, the control device **68** controlling the output energy of the treatment beam while the scattered light measurement device **66** monitors the change in scattered light (see Figure 4 and col. 12, line 50 through col. 13, line 31).

As to claims 22, 41 and 42, the scattered light correlates to a time-related mechanical effect such as temperature change of the retinal tissue resulting from the delivery of the treatment beam on the tissue, wherein the control device **68** tracks said temperature change.

As to claims 39 and 40, the laser energy for treating the retinal tissue has a wavelength and sufficient intensity to pas through the eye's cornea, lens and aqueous humor as claimed.

As to claim 45 and 46, Artsyukhovich et al teach the following:

"A comparison of the radiation originated from the treatment area in response to the treatment beam relative to the probe beam can provide information regarding certain parameters associated with the illuminated treatment area. For example, as discussed in more detail below, the probe beam's wavelength relative to that of the treatment

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beam can be selected such that a comparison of the treatment beam's reflectivity relative to the probe beam's reflectivity from the illuminated treatment area can provide information regarding the temperature of the treatment area."

See col. 12, line 60 through col. 13, line 2. Hence, the treatment laser is also used for the excitation beam.

As to claims 47-49, the variable spot size illuminator apparatus of Artsyukhovich et al. further comprises a delivery device coupled to the light sources as claimed (see Figures 1 and 4).

As to claims 50 and 54, the apparatus further comprises an observation system **56** for viewing the treatment site as claimed (see Figures 1 and 4). Artsyukhovich et al. further teaches:

"For example, the aiming beam, together with white light illumination of observation system, can be initially employed to observe and select a portion of the patient's retina that requires treatment. The beamsplitter 46 is then adjusted to align the propagation direction of the aiming beam with an axis of observation system (for example, a slit lamp). In order to select different portions of the retina, a surgeon can move and turn the observation system, e.g., slit lamp, and the variable zoom illuminator that can be mechanically attached to the slit lamp in a fixed configuration."

See col. 10, line 61 through col. 11, line 4.

As to claim 53, the apparatus of Artsyukhovich et al. further comprises diachronic beam splitters **34** and **46** that are highly reflective of the treatment laser beams (see Figures 1 and 4).

As to claims 55 and 56, the recited claims languages are devoid of any structural and/or functional limitations. The claims languages are directed to intended use of the claimed device and, therefore, are not given a patentable weight.

Claims 18, 22, 24, 25, 35, 37, 45 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Dorin et al. Pub. No. US 2003/0078567.

Dorin et al. disclose an ophthalmic apparatus **10** and methods of use for delivering Thermo-Protective Treatment (TPT) for retina-sparing sub-threshold minimum intensity photocoagulation (MIP), the apparatus **10** comprising: an optical source device **14** including various aiming and treatment lasers (see paragraph [0027]); a laser beam delivery slit lamp **18**; and a monitoring device **20** configured for detecting treatment-induced changes, such as temperature change of the tissue, to provide a feedback signal (see paragraphs [0028] to [0031]); and a control device **16** adapted to control the treatment laser system **14** based on the feedback signal (see Figure 1 and paragraph [0037]).

As to claim 37, the monitoring device 20 includes an IR imaging device that can provide visual image to the user/surgeon (see paragraph [0028]).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-33 and 36-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Artsyukhovich et al. in view of the Applicant's Admitted Prior Art (AAPA).

In the background section of the instant application, the applicant admits that the use of light measurement device such as polarization device, phase sensitive Oct device, and birefringent device is known in the art (see paragraphs [0009] to [0012] of the applicant's written description). Hence, at the time of the applicant's invention, it would have been obvious to one of ordinary skill in the art to modify Artsyukhovich et al. in view of the admitted prior art and use any of the known light measurement devices, such as such as polarization device, phase sensitive OCT device, and birefringent device as an equivalent alternative measurement device to monitor changes in the treatment site as claimed.

As to claims 36 and 37, the examiner notes that the use of topographic mapping devices for monitoring treatment procedure of ocular tissue is known in the art. Hence, it would have been obvious to one of ordinary skill in the art to map the treatment area and surrounding regions to determine treatment related changes. As to claim 38, Artsyukhovich et al. measures the temperature change of the treatment site but does not teach measuring absolute temperature. However, his measurement device is capable to measure the absolute temperature of the treatment site.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the following references:

US Pat. No. 7,115,120 to Lin, see Figure 1.

US Pat. No. 7,217,266 to Anderson et al., see Figure 13.

US Pat. No. 5,782,822 to Telfair et al., see Figure 2.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ahmed M. Farah whose telephone number is (571) 272-4765. The examiner can normally be reached on Mon, Tue, Thur and Fri between 9:30 AM 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marmor II Charles can be reached on (571) 272-4730. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ahmed M Farah/
Primary Examiner, Art Unit 3735

July 15, 2008.